





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference M719-PCT	FOR FURTHER ACTION	CTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)			
International application No.	International filing date (day/n				
PCT/JP2003/004126 31 March 2003 (31.03.2003) 29 March 2002 (29.03.200					
International Patent Classification (IPC) or n H01L 21/318, 29/78	ational classification and IPC		·		
Applicant TOKYO ELECTRON LIMITED					
and is transmitted to the applicant ac	cording to Article 36.		ational Preliminary Examining Authority		
2. This REPORT consists of a total of sheets, including this cover sheet. This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).					
These annexes consist of a to	tal of sheets.				
3. This report contains indications related	ing to the following items:				
I Basis of the report			Q		
II Priority	II Priority				
III Non-establishment o	of opinion with regard to novelty	, inventive ste	p and industrial applicability		
IV Lack of unity of inve	ention				
Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
VI Certain documents cited					
VII Certain defects in the international application					
VIII Certain observations on the international application					
Date of submission of the demand Date of completion of this report			f this report		
06 August 2003 (06.08.2003)		07	May 2004 (07.05.2004)		
Name and mailing address of the IPEA/JP	Author	Authorized officer			
Facsimile No.	Telepho	Telephone No.			

Form PCT/IPEA/409 (cover sheet) (July 1998)

onal application No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT PCT/JP2003/004126 L Basis of the report 1. With regard to the elements of the international application:* the international application as originally filed the description: pages , as originally filed pages , filed with the demand , filed with the letter of pages the claims: pages , as originally filed , as amended (together with any statement under Article 19 pages pages , filed with the demand pages , filed with the letter of the drawings: pages , as originally filed , filed with the demand pages pages ____, filed with the letter of the sequence listing part of the description: pages _, as originally filed pages ___, filed with the demand pages ____, filed with the letter of _ 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/ or 55.3). 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished. The amendments have resulted in the cancellation of: the description, pages __ the claims, Nos. _ the drawings, sheets/fig This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).** * Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.



International application No.
PCT/JP03/04126

atement			
Novelty (N)	Claims	4, 11	YE
	Claims	1-3, 5-10	NC
Inventive step (IS)	Claims		YE
	Claims	1-11	NC
Industrial applicability (IA)	Claims	1-11	YE
	Claims		NO

2. Citations and explanations

Document 1: JP, 10-173187, A (Texas Instruments Incorporated), June 26, 1998 (06.26.98) Document 2: WO, 00/65631, A2 (Applied Materials, Inc.), November 2, 2000 (11.02.00)

Claims 1-3 and 5-10

The inventions described in claims 1-3 and 5-10 do not appear to be novel based on documents 1 and 2 cited in the international search report. "Nitrogen atoms are contained in high proportion in the vicinity of the surface of the oxynitride film," described in claim 1, is disclosed in document 1, Fig. 5, and document 2, Figs. 11 and 13.

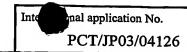
Claim 4

The invention described in claim 4 does not appear to involve an inventive step based on documents 1-2 cited in the international search report. Documents 1-2 do not describe the point that "the maximum nitrogen content is at least 20% and no greater than 30%." However, in view of paragraph [0013] in document 1 stating, "indeed, in section 20, it is preferable that more nitrogen be present than oxygen (probably very little or no oxygen)," it can be said that document 1 suggests the point that "the maximum nitrogen content is at least 20% and no greater than 30%." Therefore, adopting this constitution could be easily conceived of by a person skilled in the art.

Claim 11

The invention described in claim 11 does not appear to involve an inventive step based on documents 1-2 cited in the international search report. Documents 1-2 do not describe the point that "said plasma is plasma based on a flat antenna member (RLSA)." However, in view of document 1, paragraph [0012] describing "plasma is preferably a high-density plasma," it can be said that document 1 suggests the point that "said plasma is plasma based on a flat antenna member (RLSA)." Therefore, adopting this constitution could be easily conceived of by a person skilled in the art.

INTERNATIONAL PRESENTINARY EXAMINATION REPORT



VI. Certain documents cited

ı.	Certain	published	documents	(Rule	70.10)
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Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 02/054474 A1	11.07.2002	27.12.2001	28.12.2000
[E, X]			
JP 2002-222941 A	09.08.2002	24.01.2001	
[E, X]			
JP 2003-163213 A	06.06. 2003	29.11.2001	
[E, X]			
JP 2003-282567 A	03.10.2003	26.03.2002	
[E, X]			

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure (day/month/year)

Date of written disclosure referring to non-written disclosure (day/month/year)